

Dual Radius Twist Lock Radome And Reflector Antenna for Radome

Abstract

A radome and a reflector antenna configured to mate with the radome. The radome has a central portion and a surrounding outer portion. The central portion having a radius selected to redirect a reflected component of the transmitted RF signal from the radome to the vertex area of the reflector. The outer portion has a larger radius selected to minimize radiation pattern degradation. RF absorbing material located at the vertex area reduces return loss of the reflector antenna. The radome attaches to the reflector via a plurality of tabs formed proximate the periphery of the radome that correspond to a plurality of cut outs in the periphery of the reflector. When inserted and rotated, the radome secures to the reflector without requiring tools.